REMARKS

The present application was filed on January 31, 2001 with claims 1-28. Claims 1-28 remain pending and claims 1, 15 and 23 are independent claims.

In the outstanding Office Action dated February 27, 2004, the Examiner: (i) rejected claims 1, 2, 6-8, 10-17 and 19-22 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,240,392 to Butnaru et al. (hereinafter "Butnaru"), in view of U.S. Patent No. 6,593,956 to Potts et al. (hereinafter "Potts") and U.S. Patent No. 5,029,216 to Jhabvala et al. (hereinafter "Jhabvala"); (ii) rejected claims 3 and 4 under 35 U.S.C. §103(a) as being unpatentable over Butnaru in view of Potts, Jhabvala and U.S. Patent No. 5,940,118 to Van Schyndel (hereinafter "Van Schyndel"); (iii) rejected claims 5, 9 and 18 under 35 U.S.C. §103(a) as being unpatentable over Butnaru in view of Potts, Jhabvala and U.S. Patent No. 6,466,250 to Hein et al. (hereinafter "Hein"); (iv) rejected claims 23 and 25-28 under 35 U.S.C. §103(a) as being unpatentable over Butnaru in view of Potts, Van Schyndel and Jhabvala; and (v) rejected claim 24 under 35 U.S.C. §103(a) as being unpatentable over Butnaru, in view of Potts, Jhabvala and Hein.

With regard to the rejection of claims 1, 2, 6-8, 10-17 and 19-22 under 35 U.S.C. §103(a) as being unpatentable over Butnaru, in view of Potts and Jhabvala, Applicants assert that the Examiner has failed to set forth a proper §103(a) rejection as set forth in M.P.E.P. §2143.

Three requirements must be met to establish a prima facie case of obviousness. First, there must be some suggestion or motivation to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited combination must teach or suggest all the claim limitations. While it is sufficient to show that a prima facie case of obviousness has not been established by showing that one of the requirements has not been met, Applicants respectfully believe that none of the requirements have been met.

First, there is clear lack of motivation to combine the references. Applicants assert that no motivation or suggestion exists to combine Butnaru, Potts and Jhabvala in a manner proposed by the Examiner, or to modify their teachings to meet the claim limitations. For at least this reason, a prima facie case of obviousness has not been established. Applicants strongly believe that one ordinarily skilled in the art would not look to Potts' method for processing image and audio signals to

determine the location of an audio source for a video camera and Jhabvala's visual aid for signaling what direction a sound is coming from to modify Butnaru's device and method for receiving and processing audio data to provide indicator signals relating to noises. That is, the teachings in the references are directed to completely different environments; two (Butnaru and Jhabvala) toward visual and communication aids for the hearing impaired, the other (Potts) toward a method for locating a sound source in a video conferencing system. However, other than a very general and conclusory statement in the Office Action, there is nothing in the three references that reasonably suggests why one would actually combine the teachings of these two references.

The Federal Circuit has stated that when patentability turns on the question of obviousness, the obviousness determination "must be based on objective evidence of record" and that "this precedent has been reinforced in myriad decisions, and cannot be dispensed with." In re Lee, 277, F.3d 1338, 1343 (Fed. Cir. 2002). Moreover, the Federal Circuit has stated that "conclusory statements" by an examiner fail to adequately address the factual question of motivation, which is material to patentability and cannot be resolved "on subjective belief and unknown authority." Id. at 1343-1344.

In the Office Action at page 3, the Examiner provides the following statement to prove motivation to combine Butnaru and Potts, with emphasis supplied:

> [I]t would have been obvious . . . to modify Butnaru et al. as taught by Potts et al. in order [to] create a wearable device containing a camera capable of locating, identifying and potentially zooming to the current speaker. This would allow the wearer of the system to identify and observe the current speaker through the display (viewfinder) of the wearable device.

Additionally, in the Office Action at page 4, the Examiner provides the following statement to prove motivation to combine Butnaru, Potts and Jhabvala, with emphasis supplied:

> It would have been obvious . . . to modify a wearable device . . . to utilize visual indicators as taught by Jhabvala et al., in order to allow the wearable system to identify the direction of incoming speech, and if the speaker was not in view, using visual indicators to instruct the user to turn his/her head in the appropriate direction

> . . . the use of visual indicators with the display would assist deaf people in determining the direction of incoming speech and focusing on the current speaker.

Applicants submit that these statements are based on the type of "subjective belief and unknown authority" that the Federal Circuit has indicated provides insufficient support for an obviousness rejection. More specifically, the Examiner fails to identify any objective evidence of record which supports the proposed combination.

Second, with respect to claims 1, 2, 6-8, 10-17 and 19-22, even assuming, *arguendo*, that the Butnaru, Potts and Jhabvala references can be combined, Applicants assert that there is no reasonable expectation of success in achieving the present invention through a combination of Butnaru, Potts and Jhabvala absent the teachings of the present invention. For at least this reason, a prima facie case of obviousness has not been established. Despite the assertion in the Office Action, Applicants do not believe that Butnaru, Potts and Jhabvala are combinable since it is not clear to one skilled in the art how one would combine them. There is no guidance provided in the Office Action. However, even if combined, they would not achieve the unique techniques of the claimed invention.

Third, Applicants assert that even if combined, the Butnaru, Potts and Jhabvala references, when considered either individually or in combination, fail to teach or suggest all of the limitations of claims 1, 2, 6-8, 10-17 and 19-22. For at least this reason, a prima facie case of obviousness has not been established.

Independent claims 1 and 15 recite techniques for providing a user with one or more visual indications, in accordance with a display system associated with the user, of who is currently speaking during an event in which the user is engaged. The event includes one or more other individuals. The location of the individual who is currently speaking during the event is identified. It is determined whether the individual identified as the speaker is within a field of view of the user. A first visual indicator is displayed to the user, in accordance with the display system, in association with the individual identified as the speaker when the individual is within the field of view of the speaker. A second visual indicator is displayed to the user, in accordance with the display of the system, when the individual identified as the current speaker is not within the field of view of the user.

Butnaru discloses a communication device for hearing impaired persons that receives and processes audio data. The system comprises a stylus and tablet information input system to accommodate communication from the user, and visual display with projection apparatus for transmission of information to the user. An indicator signal is provided that relates to abnormally loud noises or readily recognized patterns.

Potts discloses a system, such as a video conferencing system, which processes image and audio signals to determine the location of an audio source. The system uses the location information to frame a proper camera shot to include the audio source. Jhabvala discloses a visual aid for the hearing impaired that signals whether a sound is coming from the left, right, front or back of the user in the form of an LED.

The Butnaru/Potts/Jhabvala combination fails to disclose the display of a first visual indicator to the user, in accordance with the display system, in association with the individual identified as the speaker when the individual is within the field of view of the user. Butnaru discloses indicator signals relating to loud noises and Jhabvala discloses indicators relating the direction of a sound, however, there is no disclosure of a visual indicator in association with an individual identified as the speaker, nor is there disclosure of a visual indicator that relates to whether a speaker is in the field of view of a user.

Further, the Butnaru/Potts/Jhabvala combination fails to disclose the display of second visual indicator to the user, in accordance with the display system, when the individual identified as the speaker is not within the field of view of the user. Again, the references fail to disclose a visual indicator that relates to whether a speaker is in the field of view of a user.

Accordingly, Applicants respectfully assert that independent claims 1 and 15 are patentable over the combination of Butnaru, Potts and Jhabvala for at least the reasons given above. Further, Applicants respectfully assert that claims 2, 6-8, 10-14, 16, 17 and 19-22 are patentable over Butnaru, Potts and Jhabvala not only due to their dependence from independent claims 1 and 15, but also because such claims recite patentable subject matter in their own right.

With regard to the rejection of claims 3 and 4 under 35 U.S.C. §103(a) as being unpatentable over Butnaru, in view of Potts, Jhabvala and Van Schyndel, Applicants again assert that the Examiner has failed to set forth a proper §103(a) rejection as set forth in M.P.E.P. §2143.

In the Office Action, the Examiner provides the following statements to prove motivation to combine Van Schyndel with Butnaru, Potts and Jhabvala. First, at page 9, paragraph 2, with emphasis supplied:

> It would have been obvious . . . to modify the wearable system . . . in order to improve the identification of the speaker, because detection of mouth movements would produce more reliable results at the expense of heavier image processing.

Second, at page 9, paragraph 5, with emphasis supplied:

> It would have been obvious . . . to modify Butnaru et al. as taught by Potts et al. in order to determine whether the individual currently speaking is within the field-of-view of the user wearing the system, because this determination would allow the system to either pinpoint the current speaker or direct the user to look in some other direction in order to place the speaker within the user's view.

Applicants again submit that these statements are based on the type of "subjective belief and unknown authority" that the Federal Circuit has indicated provides insufficient support for an obviousness rejection. The Examiner again fails to identify any objective evidence of record which supports the proposed combination. Even assuming, *arguendo*, that the Butnaru, Potts, Jhabvala and Van Schyndel references can be combined, Applicants assert that there is no reasonable expectation of success in achieving the present invention through a combination of Butnaru, Potts, Jhabvala and Van Schyndel absent the teachings of the present invention.

Further, Applicants respectfully assert that claims 3 and 4 are patentable over Butnaru, Potts, Jhabvala and Van Schyndel not only due to their dependence from independent claim 1, but also because such claims recite patentable subject matter in their own right.

With regard to the rejection of claims 5, 9 and 18 under 35 U.S.C. §103(a) as being unpatentable over Butnaru, in view of Potts, Jhabvala and Hein, Applicants again assert that the Examiner has failed to set forth a proper §103(a) rejection as set forth in M.P.E.P. §2143.

In the Office Action, the Examiner provides the following statements to prove motivation to combine Hein with Butnaru, Potts and Jhabvala. First at page 10, paragraph 6, with emphasis supplied:

> It would have been obvious . . . to modify Butnaru et al., Potts et al. and Jhabvala et al. as taught by Hein et al. in order to bring the speaker to the attention of the user by identifying him using visual emphasis. This would allow the user to quickly pinpoint the active speaker without having to look for other, less obvious indicators.

Second, at page 11, paragraph 3, with emphasis supplied:

> It would have been obvious . . . to modify visual indicators . . . in order to identify the current speaker located in the field of view of the user, because the change in the visual representation of the current speaker would quickly get attention of the user and allow him to focus on the speaker.

Applicants again submit that these statements are based on the type of "subjective belief and unknown authority" that the Federal Circuit has indicated provides insufficient support for an obviousness rejection. The Examiner again fails to identify any objective evidence of record which supports the proposed combination. Even assuming, *arguendo*, that the Butnaru, Potts, Jhabvala and Hein references can be combined, Applicants assert that there is no reasonable expectation of success in achieving the present invention through a combination of Butnaru, Potts, Jhabvala and Hein absent the teachings of the present invention.

Further, Applicants respectfully assert that claims 5, 9 and 18 are patentable over Butnaru, Potts, Jhabvala and Hein not only due to their dependence from independent claim 1 and 15, but also because such claims recite patentable subject matter in their own right.

With regard to the rejection of claims 23 and 25-28 under 35 U.S.C. §103(a) as being unpatentable over Butnaru, in view of Potts, Jhabvala and Van Schyndel, Applicants again assert that the Examiner has failed to set forth a proper §103(a) rejection as set forth in M.P.E.P. §2143.

In the Office Action, the Examiner provides the following statements to prove motivation to combine Butnaru, Potts, Jhabvala and Van Schyndel. First, at page 11, paragraph 6, with emphasis supplied:

> It would have been obvious . . . that a video camera would be necessary in order to establish the user's field of view. Because the camera would be situated on the user's head, it would only capture the information located within the user's view and thus give good indication of where the user is currently looking.

Second, at page 12, paragraph 3, with emphasis supplied:

> [I]t would have been obvious . . . to modify Butnaru et al. as taught by Potts et al. in order to create a wearable device containing a camera capable of locating, identifying and potentially zooming to the current speaker. This would allow the wearer of the system to identify and observe the current speaker through the display (viewfinder) of the wearable device.

Third, at page 13, paragraph 4, with emphasis supplied:

> [I]t would have been obvious . . . to modify the wearable system . . . in order to improve the identification of the speaker, because detection of mouth movements would produce more reliable results at the expense of heavier image processing.

Fourth, at page 14, paragraph 3, with emphasis supplied:

> It would have been obvious . . . to modify a wearable device . . to utilize visual indicators . . . in order to allow the wearable system to identify the direction of incoming speech, and if the speaker was not in view, using visual indicators to instruct the user to turn his/her head in the appropriate direction.

Applicants again submit that these statements are based on the type of "subjective belief and unknown authority" that the Federal Circuit has indicated provides insufficient support for an obviousness rejection. The Examiner again fails to identify any objective evidence of record which supports the proposed combination. Even assuming, *arguendo*, that the Butnaru, Potts, Jhabvala and Van Schyndel references can be combined, Applicants assert that there is no reasonable expectation of success in achieving the present invention through a combination of Butnaru, Potts, Jhabvala and Van Schyndel absent the teachings of the present invention.

Further, Applicants respectfully assert that claim 23 is patentable over Butnaru, Potts, habvala and Van Schyndel for the same reasons as independent claims 1 and 15. Claims 25-28 are

patentable not only due to their dependence from independent claim 23, but also because such claims respectively recite patentable subject matter in their own right.

With regard to the rejection of claim 24 under 35 U.S.C. §103(a) as being unpatentable over Butnaru, in view of Potts, Jhabvala and Hein, Applicants again assert that the Examiner has failed to set forth a proper §103(a) rejection as set forth in M.P.E.P. §2143.

In the Office Action at page 16, the Examiner provides the following statement to prove motivation to combine Hein with Butnaru, Potts and Jhabvala, with emphasis supplied:

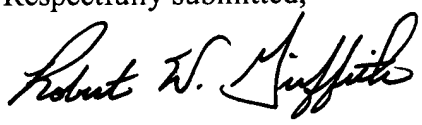
> It would have been obvious . . . to modify visual indicators . . . in order to identify the current speaker located in the field of view of the user, because the change in the visual representation of the current speaker would quickly get attention of the user and allow him to focus on the speaker.

Applicants again submit that these statements are based on the type of "subjective belief and unknown authority" that the Federal Circuit has indicated provides insufficient support for an obviousness rejection. The Examiner again fails to identify any objective evidence of record which supports the proposed combination. Even assuming, *arguendo*, that the Butnaru, Potts, Jhabvala and Hein references can be combined, Applicants assert that there is no reasonable expectation of success in achieving the present invention through a combination of Butnaru, Potts, Jhabvala and Hein absent the teachings of the present invention.

Further, Applicants respectfully assert that claim 24 is patentable over Butnaru, Potts, Jhabvala and Hein not only due to its dependence from independent claim 23, but also because claim 24 recites patentable subject matter in its own right.

In view of the above, Applicants believe that claims 1-28 are in condition for allowance, and respectfully request withdrawal of the §103(a) rejection.

Respectfully submitted,



Date: May 27, 2004

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